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09/000,301 01/20/98 WATANABE

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EXAMINER

NGUYEN, F

ART UNIT

PAPER NUMBER

2774

8

DATE MAILED:

01/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/000,301

Applicant(s)

SHINJI WATANABE ET AL.

Examiner

FRANCIS NGUYEN

Group Art Unit

2774



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-17 and 19-40 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 and 19-40 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on May 25, 1999 is ☒ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Preliminary Amendment

1. The preliminary amendment filed on 5/25/99 is entered **with exceptions**(Page 6, line 5, line 14, and line 18, Page 21, line 2) and **special note on numbering of new claims**(added claims are numbered from 19 through 40 due to rule 1.126 and because Applicant's failed to submit translation of Article 34 PCT). The proposed drawing correction filed on 5/25/99 is entered and approved by the examiner.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
3. The drawings are objected to because mistyped word "buwer"(figure 9, element 322). Correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities: improper word "generates"(Paper # 4, page 7, line 7), improper line after semi-colon(Paper # 4, page 7, line 8), improper word "where"(Paper # 4, page 9, line 3). Appropriate correction is required.

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Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-17, 21-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. **Claim 1** recites the limitation “contact input means movable provided”(Paper #4, page 7, claim 1, line 5) which fails to distinctly claim the subject matter, also limitation “said object display position”(lines 12-13) wherein there is insufficient antecedent basis for this limitation in the claim.

8. **Claim 5** recites the limitations “object display position”, “contact input means moveable provided”, (Paper #4, page 8, claim 5, lines 4 and 6) which fail to distinctly claim the subject matter.

9. **Claim 12** recites the limitation “contact input means movable provided”(Paper #4, page 10, claim 12, line 1) which fails to distinctly claim the subject matter.

10. **Claim 16** recites the limitation “**contact near a display...when the contact has been made with said display**”(Paper # 4, page 11, lines 6-9) which fails to distinctly claim the subject matter: it is not clear whether contact with the display is direct or indirect.

11. **Claim 17** recites the limitation “providing **contact near a display...when the contact has been made with said display**”(Paper # 4, page 11, lines 6-9) which fails to distinctly claim the subject matter: it is not clear whether contact with the display is direct or indirect.

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12. **Claim 21** recites the limitation “the image processing”(Paper #4, page 13, line 3) wherein there is insufficient antecedent basis for this limitation in the claim.

13. **Claim 22** recites the limitation “determiner” (Paper #4, page 13, line 3) wherein there is insufficient antecedent basis for this limitation in the claim.

14. **Claim 23** recites the limitations “contact unit movable provided”, “signal position”(Paper #4, page 13, claim 23, lines 4 and 5) which fail to distinctly claim the subject matter, limitation “the contact position”(line 7) wherein there is insufficient antecedent basis for this limitation in the claim.

15. **Claim 33** recites the limitation “wherein the predetermined distance”(Paper #4, page 15, line 2) wherein there is insufficient antecedent basis for this limitation in the claim.

16. **Claim 38** recites the limitation “sound signals from the sound detector”(Paper #4, page 15, line 2) which fails to distinctly claim the subject matter: it is not clear how a sound detector would provide sound signals to the claimed input module.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 1, 16, 17, 19, 21, 23, 24 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (Japanese Patent Laid-Open No. 56-119280) in view of Mori et al.(U.S. Patent 5,644,33).

20. As to **claims 1, 16, 17, 21, 23**, Yoshida discloses an image processing device comprising image processing means for executing image processing to move an object(English abstract, lines 1-8). However Yoshida fails to teach position computing means. Mori et al. teaches a position computing means (coordinate detector 12, figure 1), display means (LCD 17, figure 1), contact input means(stylus pen 11, figure 1), determination means (computing device 14, program 15E, figure 1), wherein said image processing means provides prescribed image processing(menu with different modes, figure 2). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus/method of Yoshida then implement the position computing means, display means, determination means as taught by Mori et al., to obtain the

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combined apparatus/method Yoshida-Mori et al., because it would result in accurate determination of contact coordinates.

21. As to **claim 19**, Yoshida-Mori et al. teaches a game machine (Yoshida, English abstract, lines 1-8), memory (Mori et al., memory 15 in figure 1). This implies software program is inherently stored in memory of said game machine at the time of the invention.

22. As to **claim 24**, Yoshida-Mori et al. teaches a hammer-type input device (Yoshida, hammer 5, English translation abstract, line 4).

23. As to **claim 40**, Yoshida-Mori et al. fails to teach display with touch screen. However, touch screen display is well known at the time of the invention. It would be obvious to a person of ordinary skill in the art to utilize the apparatus Yoshida-Mori et al. and modify the display screen with touch display screen because it would enable diverse user inputs (i.e. light pen, finger).

24. Claims 2-4, 12-15, and 25-28, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Mori et al. and Otsuki (Japanese Patent Laid-Open 1-189716A).

25. As to **claim 2**, Yoshida-Mori et al. fails to teach contact input means comprising photoreceivers. Otsuki teaches contact input means with photodetecting means (light pen with push switch, and photodetector 2, English translation, Abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus/method of Yoshida-Mori et al. then include a photodetector, as taught by Otsuki, to obtain the combined apparatus Yoshida-Mori et al.-Otsuki, because it would allow detection of light with accuracy from the display.

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26. As to claims **3 and 4**, Yoshida-Mori et al.-Otsuki teaches display of a menu, mode bar when a user input is detected(Mori et al., figures 1 and 2), a contact input means comprising switch means (Otsuki, English translation, Abstract).

27. As to claims **12, 13, 14 and 15**, Yoshida-Mori et al.-Otsuki teaches a contact input means comprising switch means for generating contact signal (Yoshida, hammer 5 with photosensors, English translation abstract, lines 1-3) , photoreceiver means for obtaining the brightness data of said display means(Otsuki, photodetector 2, English translation Abstract, also Yoshida, English translation abstract, lines 1-8).

28. As to claims **25, 26, 27 and 28**, Yoshida -Mori et al.-Otsuki teaches photoreceivers for obtaining the brightness data of the display (Otsuki, optical fiber 1, photodetector 2, English translation Abstract, also Yoshida, English translation abstract, lines 1-8, photosensors detecting light).

29. Claims 5, 6, 7, 8, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Mori et al. and Kaneko et al.(U.S. Patent 5,253,187).

30. As to **claims 5 and 20**, Yoshida-Mori et al. teaches every element except input means located near said display means and generating at least one signal. Kaneko et al. teaches a coordinate input apparatus(figure 1, vibration propagation plate 8, column 3, lines 9-33) located near display 11"(shown in figure 1) and generating at least one signal (output of signal waveform detector 9 in figure 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Yoshida-Mori et al. then add the input apparatus, as taught by

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Kaneko et al., to obtain the combined apparatus Mori et al.-Kaneko et al., because it would help improve accuracy of coordinate detection.

31. As to claims **6, 7 and 8**, Yoshida-Mori et al.-Kaneko et al. teaches said input apparatus comprising a plurality of detectors for sensing sound or vibration (Kaneko et al., **vibration sensors** 6a/6b/6c shown in figure 1), and said position computing means computes said contact position by comparing a detection timing provided by said plurality of detectors (Kaneko et al., **CPU 11**, column 5, lines 1-14, comparator 57 in figure 5), switch means for generating contact signals (switch means inherent in pen 3 of Kaneko et al., figure 2), and said position computing means begins processing based on the contact signals (Kaneko et al., controller 1 calculating propagation time , column 7, lines 53-60), prescribed relationship has been established(Kaneko et al., predetermined threshold value, column 8, lines 54-69).

32. Claims 9-11, 22, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida-Mori et al. in view of Yokoi et al.

33. As to claims **9 and 22**, Yoshida-Mori et al. fails to teach point calculating means for award points. Yokoi et al. teaches a target hitting game machine with score counter(column 3, lines 1-5). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Yoshida-Mori et al., then add a point calculating means, as taught by Yokoi et al., to obtain the combined apparatus Yoshida-Mori et al.-Yokoi et al., because it will increase excitement to the user.

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34. As to claims **10, 11, 34-35**, Yoshida-Mori et al.-Yokoi et al. does not expressly teach a display surface that is inclined. However, at the time of the invention, it is well known in the art that public video game apparatus have display surface inclined which comprises a protective cover.

35. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida-Mori et al. in view of Ishikawa et al.(U.S. Patent 5,750,941).

36. As to **claims 37, 38 and 39**, Yoshida-Mori et al. fails to teach sound detectors for detecting and receiving a resulting sound of the contact. Ishikawa et al. teaches sound detectors for detecting and receiving a resulting sound of the contact (ultrasonic wave receivers 3a/3b/3c, column 7, lines 23-26), computation of contact position by input module based on sound signals(detector circuit 4, arithmetic circuit 5, shown in figure 6, column 11, lines 19-24, column 13, lines 36-39). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Yoshida-Mori et al., then provide the sound detectors, arithmetic circuit, detector circuit as taught Ishikawa et al. to obtain the apparatus Yoshida-Mori et al.-Ishikawa et al. because it would enable accurate determination of contact coordinates, as taught by Ishikawa et al.(column 12, lines 24-25).

Allowable Subject Matter

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37. Claims 29, 30, 31, 32, 33, 36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 4,415,153 Yokoi

U.S. Patent No. 5,736,979 Kobayashi et al.

The reference Yokoi is made of record as it discloses a figure displaying game apparatus wherein a player hits moving symbol segments.

The reference Kobayashi et al. is made of record as it discloses a coordinate input apparatus using vibration sensors.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis Nguyen whose telephone number is (703) 308-8858. The examiner can normally be reached on weekdays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709. The fax phone number for this Group is (703) 308-9051.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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Francis Nguyen

January 13th, 2000



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SUPERVISORY PATENT EXAMINER
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